

Appl. No. 10/562,910
Amdt. dated January 25, 2010
Reply to Final Office action of November 23, 2009

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-11. (Canceled)

12. (Previously presented) A pressure-holding valve for a fuel injection system including at least one fuel valve device having a high-pressure region and a low-pressure region, the valve comprising

a valve housing (20) having a first connection (23) connectable to the low-pressure region and a second connection (24) connectable to the return of a fuel injection valve device, a reciprocating valve cup (25) contained in the valve housing, a first spring device (29) prestressing the valve cup, a through opening (31) in the valve cup, means (32) for alternatively opening and closing the through opening; a second spring device (33) applying a prestressing force to the means for opening and closing the through opening in order to maintain the through opening normally closed and thus maintain a minimum pressure in the return, and a pressure relief device (35,36,37,38) contained in the valve housing between the first connection and the valve cup, the pressure relief device being operable from outside the valve

housing so as to provide communication from the second connection to the first connection and thus relieve pressure in the return.

13. **(Previously presented)** The pressure-holding valve according to claim 12, wherein the pressure relief device comprises a pressure pin (35) that protrudes from the first connection toward the valve cup.

14. **(Previously presented)** The pressure-holding valve according to claim 13, wherein the pressure relief device comprises a positioning disk (36) clamped between the second spring device and the valve housing, the pressure pin protruding from the positioning disc.

15. **(Previously presented)** A pressure-holding valve for a fuel injection system including at least one fuel valve device having a high-pressure region and a low-pressure region, the valve comprising

a valve housing having a first connection connectable to the low-pressure region and a second connection connectable to the return of a fuel injection valve device,

a reciprocating valve cup contained in the valve housing,

a first spring device prestressing the valve cup,

a through opening in the valve cup,

a closing element operable to close the through opening;

a second spring device applying a prestressing force to the closing element in order to maintain a minimum pressure in the return, and

a pressure relief device contained in the valve housing between the first connection and the valve cup, the pressure relief device being operable from outside the valve housing, wherein the pressure relief device comprises a pressure pin that protrudes from the first connection toward the valve cup, wherein the pressure relief device comprises a positioning disk clamped between the second spring device and the valve housing, the pressure pin protruding from the positioning disc, further comprising a fixing disc (37) between the positioning disk and the valve housing, which fixing disc serves to fix a filter element between the positioning disk and the fixing disk.

16. **(Previously presented)** The pressure-holding valve according to claim 15, further comprising through openings (41,42,43,44) in the fixing disk and the positioning disk.

17. **(Previously presented)** The pressure-holding valve according to claim 16, wherein the through openings in the fixing disk and in the positioning disk are designed and arranged to assure a passage of fuel through the fixing disk and through the positioning disk regardless of a relative rotation of the two disks in relation to each other.

18. **(Previously presented)** The pressure-holding valve according to claim 15, wherein the fixing disc comprises an annular bead (39) on its radial outside on the side thereof oriented away from the positioning disk.

19. **(Previously presented)** The pressure-holding valve according to claim 16, wherein the fixing disc comprises an annular bead (39) on its radial outside on the side thereof oriented away from the positioning disk.

20. **(Previously presented)** The pressure-holding valve according to claim 17, wherein the fixing disc comprises an annular bead (39) on its radial outside on the side thereof oriented away from the positioning disk.

21. **(Previously presented)** A tool for reducing the pressure in a pressure-holding valve according to claim 12, the tool comprising a cup-shaped base body with a bottom wall and an essentially circular, cylindrical circumferential sidewall extending from the bottom wall, the inner diameter of the sidewall being slightly greater than the diameter of the outer circumference of the pressure-holding valve in the region of the first connection.

22. **(Previously presented)** A tool for reducing the pressure in a pressure-holding valve according to claim 13, the tool comprising a cup-shaped base body with a bottom wall and an essentially circular, cylindrical circumferential sidewall extending from the bottom wall, the

inner diameter of the sidewall being slightly greater than the diameter of the outer circumference of the pressure-holding valve in the region of the first connection.

23. **(Previously presented)** A tool for reducing the pressure in a pressure-holding valve according to claim 14, the tool comprising a cup-shaped base body with a bottom wall and an essentially circular, cylindrical circumferential sidewall extending from the bottom wall, the inner diameter of the sidewall being slightly greater than the diameter of the outer circumference of the pressure-holding valve in the region of the first connection.

24. **(Previously presented)** A tool for reducing the pressure in a pressure-holding valve according to claim 15, the tool comprising a cup-shaped base body with a bottom wall and an essentially circular, cylindrical circumferential sidewall extending from the bottom wall, the inner diameter of the sidewall being slightly greater than the diameter of the outer circumference of the pressure-holding valve in the region of the first connection.

25. **(Previously presented)** A tool for reducing the pressure in a pressure-holding valve according to claim 16, the tool comprising a cup-shaped base body with a bottom wall and an essentially circular, cylindrical circumferential sidewall extending from the bottom wall, the inner diameter of the sidewall being slightly greater than the diameter of the outer circumference of the pressure-holding valve in the region of the first connection.

26. **(Previously presented)** A tool for reducing the pressure in a pressure-holding valve according to claim 17, the tool comprising a cup-shaped base body with a bottom wall and an essentially circular, cylindrical circumferential sidewall extending from the bottom wall, the inner diameter of the sidewall being slightly greater than the diameter of the outer circumference of the pressure-holding valve in the region of the first connection.

27. **(Previously presented)** A tool for reducing the pressure in a pressure-holding valve according to claim 18, the tool comprising a cup-shaped base body with a bottom wall and an essentially circular, cylindrical circumferential sidewall extending from the bottom wall, the inner diameter of the sidewall being slightly greater than the diameter of the outer circumference of the pressure-holding valve in the region of the first connection.

28. **(Previously presented)** A tool for reducing the pressure in a pressure-holding valve according to claim 19, the tool comprising a cup-shaped base body with a bottom wall and an essentially circular, cylindrical circumferential sidewall extending from the bottom wall, the inner diameter of the sidewall being slightly greater than the diameter of the outer circumference of the pressure-holding valve in the region of the first connection.

29. **(Previously presented)** The tool according to claim 21, further comprising an arbor on the inside of the tool, the arbor extending from the bottom in the direction of the longitudinal

tool axis, the arbor having an outer diameter slightly smaller than the inner diameter of the first connection and having a length greater than the length of the first connection.

30. **(Previously presented)** A set including a pressure-holding valve according to claim 12 and a tool comprising a cup-shaped base body with a bottom wall and an essentially circular, cylindrical circumferential sidewall extending from the bottom wall, the inner diameter of the sidewall being slightly greater than the outer circumference of the pressure-holding valve in the region of the first connection.

31. **(Currently amended)** In combination, a fuel injection system including a low-pressure region and a high-pressure region from which a fuel injection valve device is supplied, which fuel injection device is connected to the low-pressure region via a return, and a pressure-holding valve connected to the return of the fuel injection valve device and to the low-pressure region, the pressure holding valve comprising:

a valve housing having a first connection connectable to the low-pressure region and a second connection connectable to the return of a fuel injection valve device,

a reciprocating valve cup contained in the valve housing,

a first spring device prestressing the valve cup,

a through opening in the valve cup

means for alternatively opening and closing ~~a closing element operable to alternatively open and close the through opening;~~ and

a second spring device applying a prestressing force to the means for opening and closing the through opening ~~-closing element~~ in order to maintain the through opening normally closed and thus maintain a minimum pressure in the return, and

a pressure relief device contained in the valve housing between the first connection and the valve cup, the pressure relief device being operable from outside the valve housing so as to provide communication from the second connection to the first connection and thus relieve pressure in the return.